

Amendments to the Claims

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Currently amended) ~~The apparatus of claim 8~~ A metal detector, comprising:
(a) a radio frequency oscillator;
(b) an oscillator coil, the coil being electrically interconnected to the oscillator so as to emit a magnetic field in a region surrounding the oscillator coil, wherein the oscillator coil is formed as first and second adjacent oscillator coils, the first and second oscillator coils being interconnected in a parallel relationship;
(c) a first input coil residing within the magnetic field, the first input coil generating a first signal in response to a disturbance of the magnetic field;
(d) a second input coil residing within the magnetic field, the second input coil generating a second signal in response to a disturbance of the magnetic field; and
(e) a signal processor, the signal processor measuring a ratio of the first signal and the second signal so as to determine a physical location of an item causing the disturbance of the magnetic field.
9. (Currently amended) ~~The apparatus of claim 8~~ A metal detector, comprising:
(a) a radio frequency oscillator;
(b) an oscillator coil, the coil being electrically interconnected to the oscillator so as to emit a magnetic field in a region surrounding the oscillator coil, wherein the oscillator coil is formed as first and second adjacent oscillator coils, the first and second oscillator coils being interconnected in a series relationship;

(c) a first input coil residing within the magnetic field, the first input coil generating a first signal in response to a disturbance of the magnetic field;

(d) a second input coil residing within the magnetic field, the second input coil generating a second signal in response to a disturbance of the magnetic field; and

(e) a signal processor, the signal processor measuring a ratio of the first signal and the second signal so as to determine a physical location of an item causing the disturbance of the magnetic field.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)